Staff Report on

# AmerenUE's Storm Restoration Efforts Following the August 13, 2005 Severe Storm

Missouri Public Service Commission

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## Introduction

This report is the result of the informal investigation of the Staff of the Missouri Public Service Commission (Staff) into the response of AmerenUE (AmerenUE or Company) to a severe storm that passed through the St. Louis metropolitan region on Saturday, August 13, 2005 at approximately 4:00 p.m. This storm was different from the typical summer thunderstorms in that it produced wind downbursts in excess of 75 miles per hour that were sustained for as long as five minutes. These downbursts occurred in suburbs of St. Louis where high densities of large trees occur. The combination of large trees and sustained winds resulted in extensive damage to AmerenUE's distribution system in a limited area and impacted the electrical service of approximately 217,000 customers in AmerenUE Missouri service territory to varying degrees.

AmerenUE activated its Emergency Operations Center at 5:00 p.m. on August 13 and declared a Level III Major Storm, the highest level. AmerenUE employees and contract workers were immediately contacted and that evening over 200 AmerenUE linemen, troublemen and tree crews were working to restore power and more were on their way to the metro area to help. This report will chronicle the response of AmerenUE to this storm and will record the Staff's observations based on information available to it at the time the report was written.

The last investigation of this type performed by the Staff was a result of two bands of severe thunderstorms that passed through central and east central Missouri on July 5, 2004 (2004 Storms). Over 220,000 customers were impacted by the 2004 Storms. While the damage from the 2004 Storms and the August 13, 2005 Storm (2005 Storm) were due to high winds, the 2004 Storms had an uncharacteristically high number of lightning strikes. The unique aspect of the 2005 Storm that this report focuses on is the sustained wind downbursts previously mentioned. The Staff investigation of AmerenUE's response to the 2004 Storms resulted in recommendations regarding tree trimming, mutual assistance agreements, the projected restoration time given customers when they

called, the call back message to customers when power is restored and the communication to customers regarding Medical Equipment Registry enrollment.

The table below is a quick comparison of the restoration times of the 2005 Storm to the 2004 Storms. It is evident that there were close to the same number of customers without power and power was restored to all customers within approximately the same time period (four days).

**Restoration Time**
(Percent Restored)

| | 2005 Storm | 2004 Storms |
|---|---|---|
| Less than 24 Hours | 51% | 78% |
| Less than 48 Hours | 74% | 95% |
| Less than 72 Hours | 94% | 99% |
| Less than 96 Hours | 99% | 100% |
| Customers Restored | 216,548 | 224,672 |

However, as the rest of this report will show, AmerenUE put more resources into the restoration effort of the 2005 Storm. Even so, it took longer to get 95 percent of the customers that were without power restored. This was because it was a different type of storm. UE employed lessons that it learned from the 2004 Storms and increased its communications to the media.

This report also includes a comparison, where possible, of the response of AmerenUE to the 2004 and 2005 storms, an examination of how well the recommendations of the Staff Report in 2004 were met, and additional recommendations for further improvements.

## Overview

In addition to daily phone calls to the Staff during the restoration effort, AmerenUE provided, by email, the information that it also provided to local St. Louis media every morning, mid-day and early evening. The media information included the number of customers without electrical service, the progress of the restoration of service and the general estimated time of restoration. A new feature that had been added to the AmerenUE web site since the 2004 Storms was the Outage Map. This map shows the number of customers without power by zip code. The Staff, Commission, the media and some customers used this Outage Map during the outage to help keep them updated on the restoration efforts.

In addition to the information provided during the outage, the Staff met with the personnel responsible for implementing the restoration plan at AmerenUE's Emergency Operations Center in St. Louis on September 8, 2005. At this meeting, AmerenUE gave the Staff a detailed presentation regarding the storm restoration and answered many of the Staff's questions regarding the storm restoration process. The Staff followed up this meeting with additional questions. AmerenUE made a similar presentation to the Commissioners at the Commission's September 15, 2005 Agenda Session.

During the outage and afterward the Staff responded to a significantly greater number of customer complaints and inquiries that were received by the Missouri Public Service Commission (Commission or PSC) than were received during the 2004 Storms. The Staff responded to approximately 200 complaints and inquiries whereas there were only about 30 customer calls in response to the 2004 Storms. Concerns expressed in August 2005 included not being able to talk to a "live" person when contacting the utility, being given an inaccurate restoration time, being given no restoration time and frustration with living in the dark for several days. A large portion of these complaints and inquiries came from the 63131 and 63141 zip codes, which were the areas where the wind downbursts occurred and therefore were the heaviest damaged areas and the last areas to be restored.

An issue from the Staff's report of the 2004 Storms was the estimate of the restoration time that the customers receive when they call into the automated system. The Staff recommended in its 2004 Report, and AmerenUE agreed, that AmerenUE should review the estimated time algorithm. AmerenUE agreed to turn off the estimated restoration time message during a major event but due to technical problems was not able to turn the message off as it had planned to during an outage of this magnitude. The Staff received a great number of complaints on this item. Customers trying to call AmerenUE to report outages were frustrated by the difficulty in reaching a person, a lack of answers to questions about when power would be restored and inaccurate restoration times that were provided by AmerenUE's automated calling system. Frustrations grew as hours without power turned into days without power for some customers with the consequences of lost food, business, and fading confidence that all that could be done was being done to restore service as quickly as possible. This is a difficult issue as AmerenUE has acknowledged and will take an ongoing effort to resolve.

A couple of issues from the 2004 Storms, that the Staff did not receive in the complaints regarding the 2005 Storm, was the confusion regarding medical equipment registry enrollment and customer call back when power was restored. Changes were made to the outage restoration verification call back process. No complaints were received by the Staff regarding the outage restoration verification call for the 2005 Storm. This does not mean that this area does not need to be reviewed again, but the Staff does believe that this signifies that considerable improvement has been made in this area.

The other area that the Staff received several calls regarding the 2004 Storms was confusion on AmerenUE's Medical Equipment Registry (MER). Previously customers on the MER thought that they would receive priority in an outage. Since the 2004 Storms, AmerenUE has provided updated information to its MER customers and has provided a special 800 phone number for the customers on this list to call when they have any questions. The Staff commends AmerenUE on its efforts in this area but because the

MER is constantly changing, the Staff would remind AmerenUE that this is an ongoing effort.

The downbursts from the 2005 Storm were in areas that were heavily covered with mature trees. These downbursts caused some trees that were rooted outside AmerenUE's easements to fall on the electric lines. The AmerenUE Vegetation Management field personnel estimated that 80 to 85 percent of tree damage was from trees located off AmerenUE's easements. In addition, the National Weather Service reported a number of locations with a large amount of tree damage. Even if properly trimmed, trees may cause extensive damage to electrical facilities in these circumstances. Removal of over-hanging limbs improves the situation but can not prevent outages in severe storms such as this. Trees around transmission lines are trimmed to the edge of the right-of-way to protect the transmission line from falling trees, but these lines have easements 100 to 150 feet wide. Transmission lines provide service to many customers and are protected by this increased standard to ensure reliability.

The Staff's 2004 Storm report dealt extensively on the decrease in tree trimming by AmerenUE and how AmerenUE had fallen behind on its tree trimming cycles. Many of the customers that called the Commission believed that the restoration would have been much quicker had AmerenUE done more tree trimming. Tree trimming is often an area of concern and misunderstanding at a time when a customer is without electrical service. When customers have electrical service, they enjoy the beauty of their trees and often do not want the electric utility to "trim" their trees. Also the trees that take out electrical service in a windstorm, such as the storm that occurred on August 13, 2005, often are not on utility easements and the utility does not have the right or manpower to remove the trees, nor do the customers want the utility to do so. This report further details the responsibilities of AmerenUE regarding the vegetation management of its transmission and distribution lines.

Almost all of the damage to AmerenUE's system from the 2005 Storm was to its distribution system. Many customers believe that burying the line is the answer to

outages. The distribution system can be placed underground but it is very expensive and the cost must be borne by the customer(s) for which service is being provided. Just because a line is placed underground does not mean that service will not be disrupted. In addition, when there is a problem with a line that is underground, it is much more difficult to find the problem which generally is a factor in causing the repair to be expensive and time consuming.

From an overview perspective, the Staff finds that AmerenUE did respond in accordance with its emergency plan. The Call Center did a good job of responding to a record level of calls while maintaining very consistent service quality levels. There were improvements in the medical equipment registry information communicated to the customers prior to the storm and in the wording used by the call back system. AmerenUE also provided more information to the media on where work was focused and on the progress of the restoration of power.

However, everyone involved has indicated that they agree that there could be improvements. AmerenUE can better educate and then communicate with city and county officials regarding the restoration of power. The special needs of skilled care nursing facilities need to be addressed. Although mutual assistance agreements were not used in the 2005 Storm, mutual assistance agreements need to be maintained and evaluated to determine the appropriate utilization of this resource. In addition, there is still work left to be done on the automated calling restoration algorithm in order to provide a realistic estimate of outage time to the customer.

The Staff offers a number of recommendations to AmerenUE in this report based on its observations during this informal investigation. The recommendations are as follows:

***1) The Company continues to maintain its mutual assistance agreements and in each major restoration effort evaluate the necessity of utilizing the agreements so that it will always have access to such resources when needed.***

***2) The Company continues its plan to eliminate the tree trimming backlog by 2008. While AmerenUE should be commended for helping the utilities in the Gulf States restore electrical service, if it falls behind its tree trimming schedule due to its efforts to help in the restoration in the Gulf States due to the hurricanes, AmerenUE should revise its schedule consistent with safe practices to return to its 4 year plan as quickly as possible.***

***3) The Company should continue to review alternatives in the development of an estimate of restoration time provided to the customer.***

***4) The Company continues its efforts to communicate with its medical equipment registry customers the importance of customer initiated alternatives being available in the event of an extended outage.***

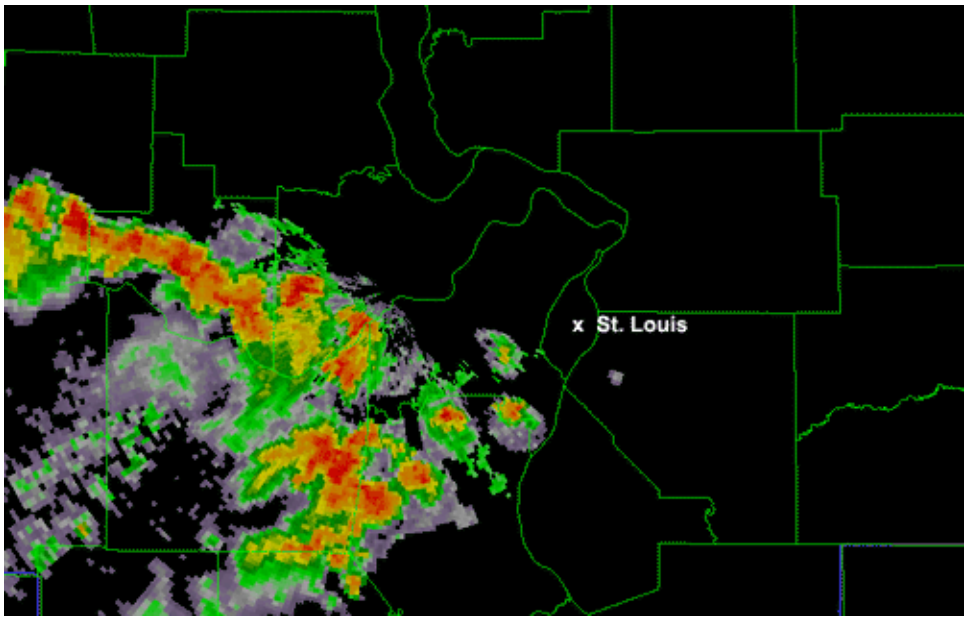
***5) Representatives from the nursing home industry and the Company meet to discuss the feasibility of AmerenUE's proposal regarding the registration of long term care facilities.***

***6) The Company should expand its presentation of informational meetings regarding major outages prior to storm season to include city and county officials.***

***7) The Company should develop an efficient method of communicating the status of restoration efforts with city and county officials in the affected area during a major outage.***

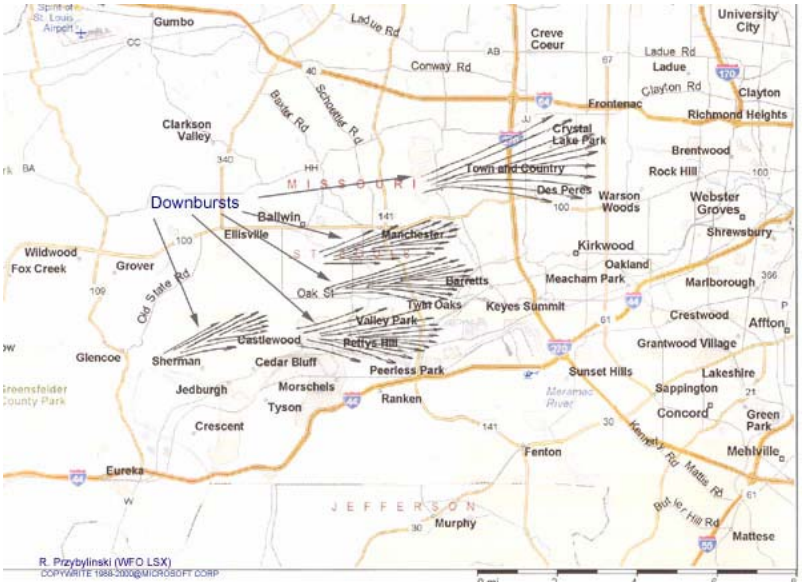
## Storm Intensity

On Saturday afternoon August 13, 2005 at approximately 4:00 p.m., a series of thunderstorms developed over central and eastern Missouri, moved into the metro St. Louis area and passed through into western Illinois. The thunderstorm also caused significant damage in Belleville and Maryville, Illinois. By 5:00 p.m. AmerenUE had a reported 151,000 customers out. Before this event was over, there would be approximately 217,000 customers that were without power due to this storm. Extensive tree damage was experienced. However, in the first hours after the storm passed through AmerenUE's service territory, AmerenUE did not know the extent of the damage because the National Oceanic and Atmospheric Administration (NOAA) had not yet reported any information regarding the downbursts. Below is the NOAA radar image of the storm entering the St. Louis area (by NOAA).

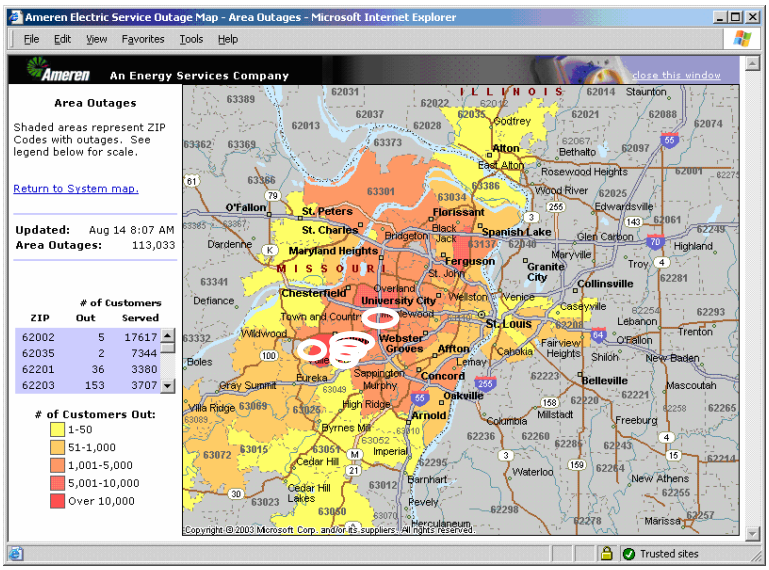


AmerenUE activated its Emergency Operations Center (EOC) at 5:00 p.m. on August 13, 2005 in response to the extensive damage that this storm caused to its distribution system in the St. Louis area. The storm was declared a Level III (major) storm. This level of storm is the most intense recognized in AmerenUE's Storm Restoration Guide. This guide has been developed by AmerenUE to communicate policy regarding EOC operations and to serve as a reference tool for managing restoration following major storms. Storm levels defined in the guide outline the response necessary to get customers back in service based upon the number customers affected and the extent of damage.

NOAA later informed AmerenUE that this thunderstorm had contained downbursts – straight-line winds of at least 75 miles per hour that were sustained for as long as five minutes. A Category 1 hurricane has winds rated at 74 miles per hour. NOAA provided the following map to AmerenUE showing where the downbursts occurred.




When AmerenUE overlaid the map of the downbursts on its outage map at the height of the outages, the areas with the highest number of outages were the areas where the downbursts occurred. That overlay is shown on the next page. The down burst occurred where the ovals are shown.

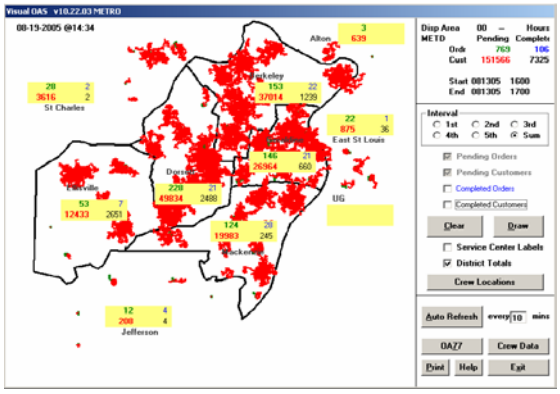



While this is excellent information to explain the damage and would have helped AmerenUE know where the most damage was so that it could have more efficiently directed its resources, NOAA cannot furnish this information on a real time basis at this time.

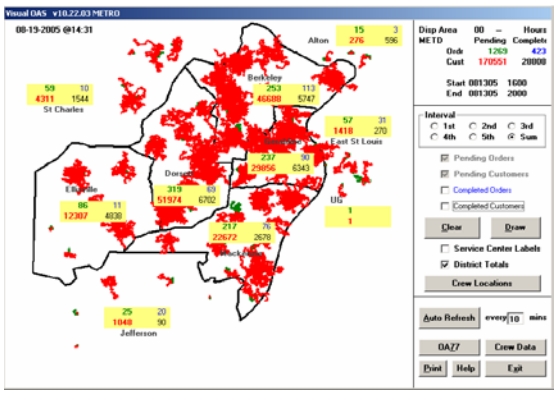
## Outage Tracking

Just as in the 2004 Storms, AmerenUE utilized its Outage Analysis System (OAS) to track and coordinate restoration of outages. However, in the 2005 Storm there were a total of 10,928 orders created on the OAS system compared with approximately 6,700 in the 2004 Storms. AmerenUE managed the restoration from its EOC by coordinating the callout of crews from other districts and providing the necessary resources. Local managers directed the response in the field. The OAS provided the electronic capacity for the storm coordinator to manage the restoration. Input to the OAS included information from the Call Center from customers and electronic information from the CellNet automatic meter reading (AMR) system. The OAS groups the information from various sources, estimates where the system fault has occurred, and provides this information to the service crews to speed the restoration of service. Orders are sent to laptop computers in the service trucks where they are accepted by the servicemen and cleared when completed. The feature of the OAS system that was first used in the 2005 Storm response was the use of voice recognition technology by field checkers when they called in information from the field.

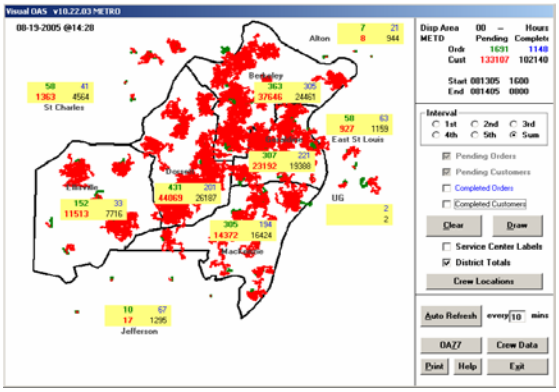
The OAS also has graphical representations of areas where customers are currently without service and where customers have recently had their service restored. The images on the next page are from AmerenUE's OAS. They show the areas where customers experienced outages and the period over which service was restored to all customers.



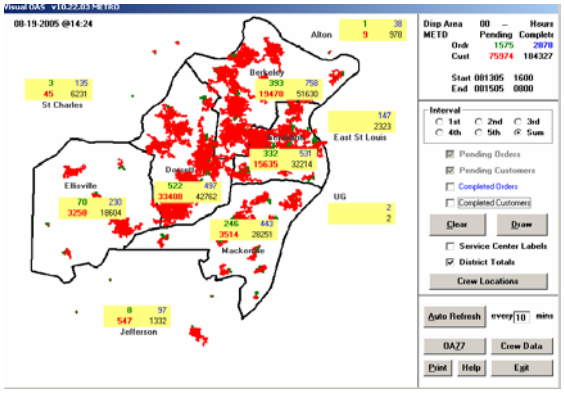

August 13, 2005 5:00 p.m.



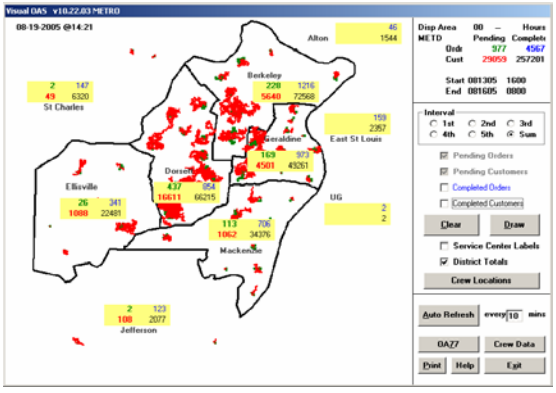

August 13, 2005 8:00 p.m.



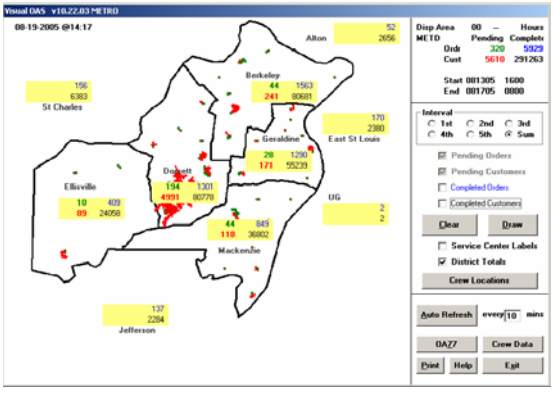

August 14, 2005 8:00 a.m.




August 15, 2005 8:00 a.m.




August 16, 2005 8:00 a.m.




August 17, 2005 8:00 a.m.

## AmerenUE's Response – Personnel

AmerenUE began calling its own linemen and field resources at 5:00 p.m. on Saturday, August 13, 2005. By the end of the day AmerenUE had at least 229 of its own personnel working this outage. AmerenUE started calling its contractor crews by 5:15 p.m. on Saturday and the crews began responding to the St. Louis area on that day. Staging sites for the four Missouri material trailers had been set up and the trailers had been deployed to the staging sites within hours of passing of the storm. Field checking resources and wire watchers were contacted and asked to report on Sunday morning. The table below shows the number of linemen, troublemen and tree clearing personnel that were working the restoration effort by date.

**Linemen, Troublemen and Tree Clearing Personnel**

| Date | Ameren Mo. | Ameren Il. | Contractor | Tree Clearing | Other |
|---|---|---|---|---|---|
| 8/13/05 | 164 | | | 40 | 25 |
| 8/14/05 | 286 | 70 | 180 | 173 | 58 |
| 8/15/05 | 288 | 82 | 193 | 218 | 63 |
| 8/16/05 | 409 | 118 | 203 | 261 | 74 |
| 8/17/05 | 409 | 118 | 206 | 17 | 75 |

All the numbers are at the beginning of the day except for August 13. Because Belleville and Maryville, Illinois also experienced significant damage from the 2005 Storm, crews were not available from Illinois until August 14. Typically the crews worked from 5:00 a.m. until 11:00 p.m. However, some crews did work through the night. No crews were released until mid-day August 17 when all work was assigned and crews were subsequently released based on the distance they had traveled with those that traveled the farthest distance being released first.

In addition to the linemen, troublemen and tree clearing crews, AmerenUE had field checkers, public service advisors (PSAs) and crew guides in the field. The field checkers

typically went out in advance of the tree crews to determine what types of crews and equipment were needed in each area so that AmerenUE's resources could be used most efficiently. The PSAs did many duties, helping wherever possible, including relieving policemen guarding downed wires so that the policemen could be used elsewhere.

While the use of field checkers helped AmerenUE utilize its resources better, it often confused the public because they saw utility personnel come to their area and then leave without doing anything to restore power. Even after field checkers make their assessment, it may be hours or days before the appropriate crews return to get power restored to these customers. This subsequently results in angry customers who believed that AmerenUE did little and was very inefficient. In fact, AmerenUE was assessing the situation to see how best to restore power to all of its customers. AmerenUE increased the number of field checkers that worked in the 2005 Storm when compared to the 2004 Storms and found them very beneficial to the process of restoring customers' service.

The Staff requested field resource personnel information on a daily basis from the 2004 Storms to compare the table on the previous page. Unfortunately, the same data was not kept for the 2004 Storms. However, the following comparable summary of both storms was available.

**Summary of Field Resource Personnel**

| | 2005 Storm | 2004 Storms |
|---|---|---|
| Linemen/Troublemen | 773 | 596 |
| Other Field Forces | 32 | 40 |
| Field Checkers/PSA | 180 | 80 |
| Tree Clearing Crews | 261 | 250 |
| Total Field Personnel | 1246 | 966 |

Neither the 2004 nor the 2005 numbers include the superintendents, engineers, dispatchers, dispatch supervisor, storm center personnel, materials management, person call center, fleet and logistics support personnel.

## Mutual Assistance Agreements

As can be seen from the table that shows field personnel information, linemen, troublemen and tree clearing crews came from both Missouri and Illinois. The contract crews were not only crews that had contracts with AmerenUE, but also were crews that were released from their contracts from neighboring utilities to work this outage for AmerenUE. For AmerenUE and other utilities, more and more of the every day field work is now done by contract labor. When this storm hit, AmerenUE called, requested and received, neighboring utilities' release of their contract crews so that AmerenUE could use them to help with the 2005 Storm restoration. These are the contract personnel listed in the table. Some of this contract labor came from as far as Kansas City and Chicago.

In addition to these contract personnel, AmerenUE called on workers from within its own affiliates – AmerenCIPS, AmerenCILCO and AmerenIP. In the past, whenever AmerenUE experienced a large outage due to a storm such as this, these were the neighboring utilities that AmerenUE called on through mutual assistance agreements (MAA) to help it out. Now it no longer has to rely on a mutual assistance agreement with these "neighboring" utilities. It can call on its own affiliates.

Before calling on a utility in which a mutual assistance agreement exists, the utility must first assess the amount of damage and estimate how long it believes it would take for its current resources to complete the job. Then, it needs to take into account the travel time it will take the MAA utility crews to get to the site, which is often one to two working days. In this case, it was Sunday, August 14 before AmerenUE had a good assessment of the complete damage. At that point, the most realistic estimate was that the earliest that crews could get to St. Louis was Monday evening, August 15. As it was, AmerenUE ended up sending crews home by mid-day on Wednesday, August 17. If it had called on its mutual assistance agreements, the crews would have only been in St. Louis at the most two days.

While getting customers back in service one day or even one hour sooner is very important, it is vitally important not to misuse mutual assistance agreements. These are people who give time and effort to restore power in often unsafe and harsh conditions.

The Staff strongly supports AmerenUE's continued participation in mutual assistance agreements and recommends that:

***The Company continues to maintain its mutual assistance agreements and in each major restoration effort evaluate the necessity of utilizing the agreements so that it will always have access to such resources when needed.***

## Vegetation Management

In discussions with AmerenUE customers after the August 13, 2005 storm, many customers raised issues related to tree trimming and vegetation management. It appears that many customers are aware that most of the outages were tree related and that AmerenUE is currently attempting to reduce its tree trimming backlog. In the Staff's report following the 2004 Storms, the Staff made the following recommendation:

> Staff strongly recommends that AmerenUE immediately implement programs to begin addressing the existing backlog in the tree trimming cycles of its distribution systems in rural and suburban areas. AmerenUE's efforts to address this current backlog in distribution system trimming should not be implemented through any types of reductions in current efforts to adequately control vegetation along their transmission system corridors or in reductions in efforts in other areas that could impact system reliability or safety. Staff notes that AmerenUE has policies currently in place regarding vegetation management, working with impacted landowners and public relations. AmerenUE should not diminish or stop applying any of these customer relation polices or practices in its efforts to address this current backlog in tree trimming work.

After discussions between AmerenUE and the Staff, AmerenUE made the following commitment in a letter dated November 2, 2004:

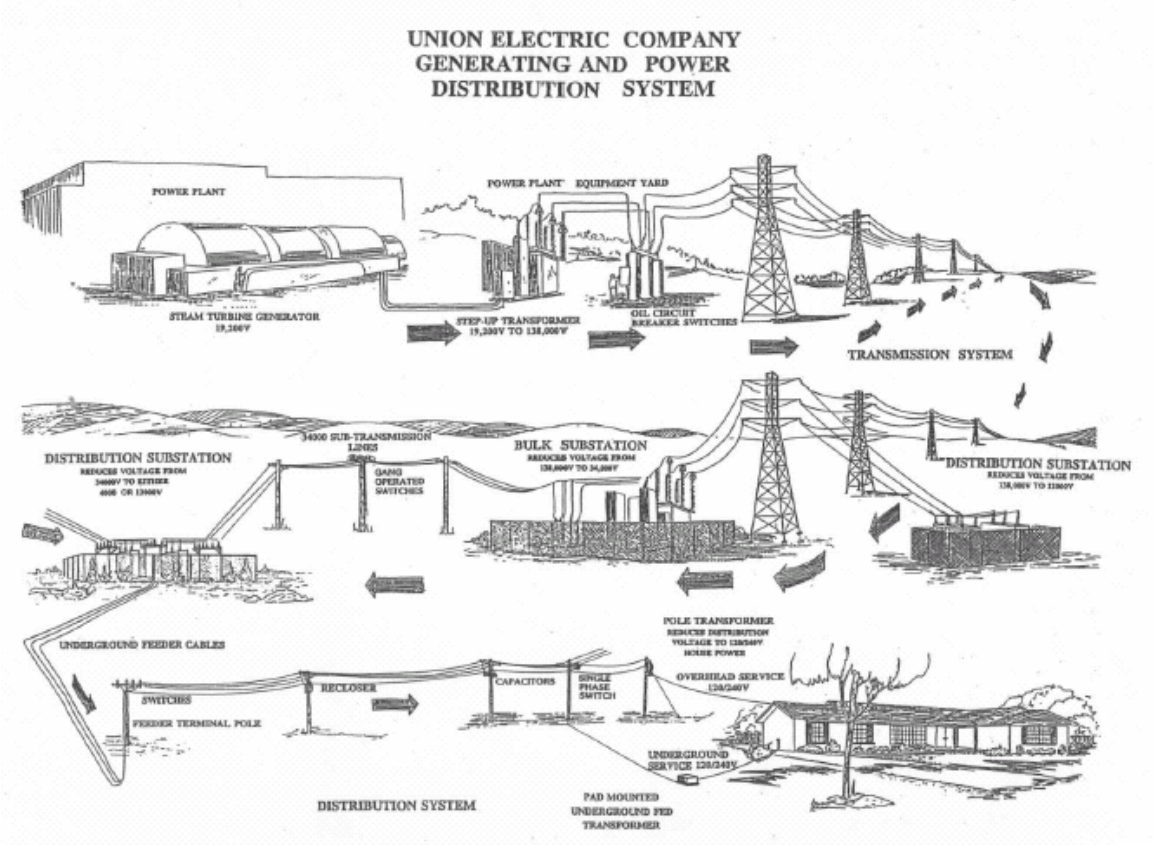
> AmerenUE's goal is to have tree trimming cycles for its Missouri distribution systems of four years growth for urban areas and 6 years growth for rural areas. However, as the Staff report recognized, the Company has experienced extended tree trimming cycles. Moreover, the limited availability of properly trained tree trimming crews to contractors makes it virtually impossible to immediately eliminate the backlog. AmerenUE has discussed this issue at length with the Staff and has agreed to take the following steps to address the backlog. First, AmerenUE will increase its tree trimming budget from $23.5 million in 2004 to $30 million in 2005 – a 27% increase. This step will allow the Company to immediately direct its vegetation management contractors to begin the hiring and training of new tree trimming personnel. Second, AmerenUE commits that its backlog of extended tree trimming cycles will be eliminated on or before December 31, 2008. AmerenUE anticipates that meeting this commitment will require expenditures at or near the $30 million level for each of the next several years. Third, the Company will provide reports to the Staff of tree trimming schedules, staffing and funding levels. For 2005, the Company will provide these reports on January 15 and July 30, and thereafter the Company will also make its vegetation management personnel available to review these reports with the Staff, at the Staff's request. Fourth, the Company is willing to participate in joint field

reviews of the program with the specifics of the field review to be developed in cooperation with the Staff.

AmerenUE's efforts to address its distribution system tree trimming, as outlined in the previous paragraph, will not be implemented through any type of reduction in the Company's current efforts to adequately control vegetation along its transmission system corridors or in reductions in efforts in other areas that could impact system reliability or safety. In addition AmerenUE will not diminish or stop applying any of its current customer relation policies or practices relating to vegetation management in its efforts to address system tree trimming.

As AmerenUE's commitment indicates, AmerenUE has begun the process of reducing the tree trimming backlog. However, at the time of the storm of August 13, 2005, only seven and one-half months of the 48 month plan to reduce the tree trimming backlog had been completed so the tree trimming backlog still exists. Based on conversations that the Staff had with customers, the Staff determined that there was confusion over tree trimming schedules. In urban areas, AmerenUE would typically trim every 4 years. Several news agencies reported that AmerenUE was slightly ahead of its tree trimming schedule. Customers complained that their lines had not been trimmed for more than 4 years and believed that AmerenUE could therefore not be slightly ahead of schedule. However, when AmerenUE claimed to be slightly ahead of schedule, AmerenUE was referring to the plan that is in place to eliminate the tree trimming backlog by the end of 2008. Since the urban tree trimming average cycle was slightly higher than 5 years at the beginning of 2005, one can easily conclude that the average is currently still much closer to 5 years than it is to the 4 year urban cycle goal.

Even if AmerenUE totally eliminated the tree trimming backlog tomorrow, tree related outages would still occur with the storm conditions that occurred on August 13, 2005. AmerenUE's vegetation management field forces estimated that 80 to 85 percent of all tree damage was from trees located off of the easement. This statistic is not surprising given that a) almost all service lines are not on easements and b) easements for most distribution lines are quite narrow. The following diagram illustrates the major elements of the infrastructure that AmerenUE depends on to deliver electricity to its customers including service lines and distribution lines.




Service lines are typically 240 volt lines that are insulated and can therefore tolerate incidental tree contact. Customers typically do not pay any attention to tree limbs that are near or even touching service lines since they still receive service under most conditions. However, these same limbs and trees can do significant damage to a service line if the full weight of the limb or tree is forced upon the service line, which often happens during severe storms.

Distribution lines, such as a primary conductor that is typically 7,200 volts, are not insulated. Contact with tree limbs can cause arcing or electrical short circuits to ground. Therefore, utilities like AmerenUE typically trim the trees and limbs that are in close proximity to their distribution lines. Typically, the easement for the distribution lines define the corridor in which the trees are trimmed. Since many distribution easements are 20 to 25 feet wide, this means that many limbs are no more than 10 feet away from the conductor. While this distance is adequate under most conditions, during storms like the August 13, 2005 storm, the same limbs can damage the distribution conductors.

In contrast, trees near transmission lines are trimmed to the edge of the right-of-way to protect the lines from falling limbs and even falling trees. With easements of 100 to 150 feet wide and the right to cut trees beyond the easement if the tree threatens the transmission lines, transmission lines avoid many of the problems that occur during storms. Some customers question why electric utilities do not cut 100 to 150 foot wide corridors for distribution lines and service lines as well. In addition to the additional easement acquisitions and tree trimming costs that would be required, such a policy would alter the appearance of residential neighborhoods beyond recognition. Many neighborhoods would literally be devoid of trees.

While most of the tree trimming discussion has addressed the width of the tree trimming corridor, another factor is the height to which trees are trimmed. In many of the neighborhoods that AmerenUE serves, the distribution lines are dwarfed by the surrounding mature trees. Typically, electric utilities do not trim the limbs that are significantly higher than the distribution lines. This practice is generally believed to result in a healthier, more attractive tree. However, the practice also increases the risk of tree related storm damage since the limbs are directly above the lines.

Although this report addresses the impact of high winds and thunderstorms in the summer months, the threat of an ice storm during the winter may well be the worst case scenario regarding storm damage. The August 13, 2005 storm clearly illustrates that microbursts and other high wind events can do significant damage. However, the most severe winds are usually limited to a relatively small area when compared to AmerenUE's total service area. In contrast, ice storms can affect large areas and the ability to respond to an ice storm can also be affected by the road conditions that are often treacherous for several days after the storm hits. In addition, while distribution lines with overhead limbs are hard hit during ice storms, some lines are affected by the ice that forms on the line itself. Finally, the service drops are particularly vulnerable to overhead limbs and to ice forming on the line. Damage to service drops is further complicated when the weatherhead (the pipe assembly rises above the roof where the service line

enters the building) is damaged since the weatherhead is owned by the customer and therefore must be repaired by the customer's contractor.

Long term scheduling of tree trimming should be viewed as a general guideline and not an exact schedule that is inflexible. Many of the items affect the day-to-day completion of tree trimming schedules are the same issues that affect most outdoor professions: local weather conditions can limit the productivity of the crews or even can cancel work for a day or more and sick and annual leave for one or more members of a crew can also affect productivity. Some level of major storms which require assistance can be assumed to affect a given utility or surrounding utilities that request assistance. Finally, large, weather-related outages such as the recent hurricanes can require crews for weeks or even months at a time. While some level of loss of productitivity can be anticipated, it is not possible to exactly forecast the exact effect that the many items may have on the schedule. Instead, the utility, working with vegetation management subcontractors, must continually adjust the schedule to account for deviations from the schedule. For this reason, recent deviations from the schedule primarily caused by the response to the August 13 storm and to the hurricanes are not excuses for schedule slippages but are instead the reasons that the schedule must be adjusted to meet stated deadlines at a later date. That being said, the Staff maintains deviations from the schedule and proposed solutions to correct for those deviations should be supplied to the Commission and AmerenUE's customers on a relatively frequent basis.

The Staff strongly recommends that AmerenUE:

***The Company continues its plan to eliminate the tree trimming backlog by 2008. While AmerenUE should be commended for helping the utilities in the Gulf States restore electrical service, if it falls behind its tree trimming schedule due to its efforts to help in the restoration in the Gulf States due to the hurricanes, AmerenUE should revise its schedule consistent with safe practices to return to its 4 year plan as quickly as possible.***

## Call Center Operations

The Call Center and its role in the instance of a major outage was reviewed by the Staff in its report regarding the 2004 Storms. The Staff made several recommendations to improve the type of information that the customer receives during an outage.

A specific recommendation was made that AmerenUE review the algorithms used to determine the estimate of restoration time provided to the customer. The algorithm becomes very inaccurate when applied to a widespread outage because of the number of variables. The Company did review the algorithm used to compute restoration times for major outages and set criteria to stop producing an estimate when outages reached a certain level. When it was apparent that the damage was widespread, the Company implemented a manual overide to discontinue providing the outage restoration time within its automated response system.

In reviewing complaints received by the Staff during the outage, the estimate of restoration time was identified as being a component of many of these customer complaints. Approximately half of these customers indicated that if they could not receive an accurate estimate, they would prefer no estimate at all. The other half complained that the restoration estimate system had been shut-down and they did not receive any estimate of restoration time. Providing an accurate estimate of restoration time is difficult but nonetheless important to the customer.

An additional recommendation was made by the Staff after the 2004 Storms regarding the callbacks made to the customer to verify the restoration of service. In response to the Staff report, the Company reviewed the use of the callback system to confirm restoration of service. The Company changed the callback script to make it clearer to the customer what action to take if their service had not yet been restored after the storm restoration call. These changes were implemented last Fall a few months after the 2004 Storms. The Staff believes that these improvements were effective as the Staff did not receive any negative comments from customers regarding this item.

Ameren provides customers with an 800 number to contact its Call Centers (also referred to as Contact Centers) for a variety of services and questions. St. Louis metropolitan area customers may use local numbers for outages and billing. Under normal conditions, these calls will go to one of the three Company operated Call Centers located in St. Louis, Jefferson City and Cape Girardeau.

When the customer dials the 800 number, the customer first reaches the Voice Response Unit (VRU) which helps to categorize their call and route it to the next appropriate group of options available to handle the request. Based upon the nature of the call, the customer will be able to select the option that can most quickly handle the call. During the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, the options available include eight different routings for the customer's inquiry.

The first option is billing because of the frequency of these calls. The second option is to report an outage. When the customer selects the outage report, the customer is then given three options. The first option is if there is a "light out" to report. "Light out" asks the customer to input a phone number. The system then looks for a match and asks the customer to verify whether the information is correct. If there have been enough "light out" calls entered into the system for it to make some determination of the extent of the outage, then the customer will, under some circumstances, be given information on the number of customers affected and the estimated time of restoration. The estimated time of restoration is calculated using an algorithm and is discussed in greater detail in the section of the report on Consumer Complaints.

At any time, if the customer does not provide the requested information, the call will be transferred to an agent. The second option is if there is a wire down or gas odor. These calls go straight to an agent. The third option is if there is a streetlight out or other outage. This option also asks the customer to input a phone number.

If the customer has opted to speak to an agent, the representative will take the information and enter it into the trouble screen. The representative can give the customer

information to let the customer know if the specific cause has been identified (i.e., feeder is out), whether a crew is assigned to the outage and the approximate number of other customers affected.

The Company staffs its Call Center based upon historical levels of calls at various times of the day, week and month. However, when a major outage occurs, the normal level of resources will be unable to process the volume of calls that may occur. AmerenUE has a number of options available to it regarding how to increase its call handling ability under high call volume situations.

The first option is the utilization of additional telephone trunk lines to accept outage calls. AmerenUE subscribes, as many other companies do, to a service that allows it to access additional telephone trunk lines in the event of an emergency that presents it with a high volume of calls. If the number of calls going to the VRU reaches its maximum volume, additional trunk lines are automatically accessed from NCC Hanover (the private company that provides trunk line service). Overflow outage calls accessed additional telephone trunk lines starting on Saturday evening, August 13, 2005 and continued through Tuesday, August 16, 2005. For that period of time, the NCC Hanover overflow took a total of 112,625 calls. In the first two days following the storm, NCC Hanover took approximately 100,000 of these calls. These outage reports were automatically entered into the outage system to be worked in the field. The table on the following page illustrates the call volume received by the Company over the period of August 13 through August 17.

**Call Volume Received**

| | 8/13/05 | 8/14/05 | 8/15/05 | 8/16/05 | 8/17/05 | Totals |
|---|---|---|---|---|---|---|
| VRU orders (outage only) | 10,035 | 45,681 | 19,349 | 9,883 | 2,152 | 87,100 |
| NCC Hanover overflow | 49,999 | 50,195 | 12,117 | 314 | 0 | 112,625 |
| AmerenUE agents (all calls) | 4,026 | 19,049 | 19,109 | 15,375 | 10,550 | 68,109 |
| AmerenCIPS agents (outage only) | 417 | 367 | 112 | 305 | 6 | 1,207 |
| AmerenCILCO agents (outage only) | 220 | 617 | 66 | 478 | 0 | 1,381 |
| Outsourced group (all calls) | 0 | 1,445 | 2,721 | 2,361 | 1,911 | 8,438 |
| Total calls per day | 64,697 | 117,354 | 53,474 | 28,716 | 14,619 | 278,860 |

The Company received a greater number of calls during the course of the 2005 outage as compared to the storms in 2004. The total number of calls for the 2004 Storms reflecting 5 days of outage calls was 255,580, compared to the 2005 Storm where the Call Center handled 278,860 calls over a 5 day period.

Another option available to AmerenUE was to reallocate some of its present resources, which may normally be used for handling billing inquiries or credit and collection calls, to taking outage calls. The Company utilizes First Contact which is an outside contractor to assist it by handling customer calls involving payment arrangements and delinquent accounts. An actual service representative who can access the Customer Information System (CIS) responds to these calls. AmerenUE is able to request that First Contact assist in these situations by accepting outage calls, instead of handling billing inquiries. When the call volume continued to increase on Sunday, August 14, the Company brought First Contact in to also accept outage calls.

On a normal weekday, 115 representatives take calls at the AmerenUE Call Center. Given that it was a weekend when the 2005 Storm occurred, overall staffing was down at the Call Center. Call volumes are normally much lower over a weekend. The Company

also enlisted the assistance of service representatives from AmerenCIPS and AmerenCILCO to start receiving outage calls the evening of August 13 when it was obvious there was widespread storm damage. The AmerenCILCO and AmerenCIPS agents assisted in handling calls until August 17.

The following chart shows the number of personnel taking calls during the period of August 13 through the 17.

**Personnel Taking AmerenUE Calls**

| | 8/13/05 | 8/14/05 | 8/15/05 | 8/16/05 | 8/17/05 |
|---|---|---|---|---|---|
| AmerenUE Employees | 47 | 123 | 168 | 173 | 133 |
| Contractors | 0 | 15 | 36 | 35 | 34 |
| Total | 47 | 138 | 204 | 208 | 167 |

The contractor group represents First Contact, which is the contractor company that normally handles collection related calls for the Company. In instances of a widespread outage, the Company may ask them to assist by taking outage calls. The Company had fewer people handling calls for this outage than it had available for the 2004 Storms. The number of personnel taking calls in 2004 was 967 total over the 5 days. For the 2005 Storm, the Company was able to handle a greater number of calls with a total of 764 personnel over 5 days.

The Staff reviewed the number of average daily number of calls handled by the Call Center from 2002 to the period of the 2005 Storm. The numbers for the 2004 Storms and the 2005 Storm represent the average daily number of calls over the period of those outages. The figures are provided in the following table for comparison.

**Call Center Average Daily Calls**

| 2002 | 2003 | 2004 | 2004 Storms | Jan.-July 2005 | 2005 Storm |
|---|---|---|---|---|---|
| 11,334 | 9,642 | 11,050 | 51,116 | 10,626 | 55,772 |

The Company was faced with a greater number of calls after this storm than any it had encountered in earlier restoration efforts. A feature added to the automated system was

an option for the customer to provide AmerenUE with additional information regarding the outage. The customer is transferred to a representative and may provide additional information such as noting a pole down in a yard. This type of information assists the Company in pinpointing the cause of the outage and responding more quickly in restoring service.

Changes will be made to the VRU system scripts later this year. Under the changes, the first script offered will change from the billing option to the outage option. This change will provide faster access to those customers desiring to report an outage. The VRU will also incorporate additional opportunities for speech recognition to be used in accepting information.

An additional concern during a major outage relates to the wait time experienced by the customer in trying to access the Company's phone lines to report the outage. Call Centers routinely utilize a number of indicators to assist them in determining the level of their performance in providing service to the customer. The two indicators most frequently cited by companies are the Average Speed of Answer (ASA) and the Abandoned Call Rate (ACR). The wait time that a customer experiences before he/she is able to report information to a service representative is defined as the ASA and is measured in seconds. The ACR reflects the percentage of the calls that are abandoned or terminated before they are handled often because of the wait times experienced by the customer. AmerenUE utilizes a Percent Answered indicator, which is similar to the ACR. The Percent Answered is the difference between 100% of the calls and the percent of calls not answered or abandoned. The Company's performance at the Call Center during the period of the 2005 Storm is illustrated in the following table.

**Call Center Performance**

| | 8/13/05 | 8/14/05 | 8/15/05 | 8/16/05 | 8/17/05 |
|---|---|---|---|---|---|
| Average Speed of Answer Minutes:Seconds | 10:43 | 1:50 | 1:32 | 2:13 | 0:44 |
| Average Talk Time Minutes:Seconds | 1:43 | 1:54 | 2:14 | 2:22 | 2:28 |
| Percent Answered | 91.6% | 99.7% | 90.3% | 86.0% | 95.0% |

Information provided in the prior table illustrates the performance of the Call Center during the period of the outage restoration. When the outage began the evening of August 13, the initial ASA or wait experienced by the customer was an average of 10 minutes. The next day, the Company was able to reduce this wait to an average time of less than 2 minutes. The average talk time increased as the restoration period continued through August 17, 2005.

It is important to note that the Company maintained relatively high levels of answering customer calls over the period of the storm. Although the initial wait times were an average of over 10 minutes, this time decreased dramatically the next day as the Company was able to staff more effectively for the high volume of calls. The Company's Call Center performance for the 2005 Storm compares very favorably with the 2004 Storms. In the 2004 instance, the Company's percent of answered calls was in the 80% to 91% range during the outage. In addition, the Company was able to keep its average speed of answer time comparable to the 2004 Storms (after the first day of the storm). As noted above, the Company also handled a greater number of calls with fewer personnel in 2005.

## Consumer Complaints

During and following any major outage situation, a significant number of informal complaints and public comments are entered into the Commission's EFIS system. Once the customer has reported an outage to the Company, he/she believes that some action will be taken by the Company to restore service as quickly as possible. As an outage continues, the customer experiences additional inconveniences and faces possible financial losses including those associated with refrigerated food items. Commercial customers may face a loss of sales or other impairment of business. The appearance of a utility truck in an area may be welcomed until the truck drives by and does not stop at the customer's house or in the neighborhood. These are all situations that may cause the customer to repeat his/her outage call to the Company and also initiate a complaint to the Commission's Consumer Services Department.

The following table illustrates the number of complaints registered and the dates they were received by the Commission Staff during the time frame of August 15 through August 22, 2005. The actual storm occurred in the St. Louis area on Saturday, August 13 but the complaints to the Commission were not received until Monday, August 15.

**Service Outage Complaints to Missouri PSC**

| 8/15/05 | 8/16/05 | 8/17/05 | 8/18/05 | 8/19/05 | 8/22/05 | Total |
|---|---|---|---|---|---|---|
| 26 | 43 | 52 | 30 | 15 | 15 | 181 |

The Consumer Services Department received a total of 404 calls for this week. Almost half of these calls were attributable to AmerenUE service outage inquiries. The Engineering and Management Services Department staff has reviewed these complaints to determine if there were issues regarding the utilization of the Call Center or other areas that may have been identified in prior Staff reviews regarding AmerenUE storm restoration.

Many customers made specific comments regarding the length of the outage, difficulties obtaining access to the Call Center, and the frustration of seeing AmerenUE trucks in the

area when they continued to experience the service outages. Other issues from analysis of the data are also important to address.

The number of calls received by the Staff and by the Company fluctuated over the period of August 13 through August 20, 2005. The number of calls received by the Staff actually increased until August 18. The number of calls received by the Company on the second day of the outage (August 14) doubled over those it had received the first day to a level of 117,354. Details on the specific number of calls received by the Company are included in the section of this report on Call Center Operations.

The usage figures for the Company's website also increased from August 13 to August 16. The numbers continued to increase even though the storm was over on August 13 and there was no additional damage done to the system after August 13. Many customers who were still out after 24 to 36 hours reached a very high level of frustration with the Company. They were unable to access reliable information regarding their own particular situation and felt helpless. They were also potentially facing the loss of work time, loss of refrigerated foods and perhaps even health issues. These customers may have placed an additional call to the Company as well as to the Staff to issue their concerns.

Customers calling in to report an outage either through the VRU or with an agent are able to obtain some information about the extent of the outage and an estimate of the restoration time for their area. This estimate of restoration time is computed using an algorithm. The formula looks at the number of jobs, types of orders, staffing, cause of outage and other factors to develop an estimate of restoration time. Estimates are actually programmed to be on the high side or overestimated to provide customers a more positive experience if their service is restored in less time than anticipated. This formula works reasonably well when dealing with an outage that is small and concentrated. However, it is not effective when applied to widespread major outages because of the large number of unknown issues. The Company realized the limitations of the present formula when a major widespread outage occurred. During the 2004 Storms, the

information generated by the algorithm became so inaccurate that Call Center agents were instructed to ignore the calculations of restoration times.

The Company revised its procedures regarding the use of the algorithm based on the recommendations presented in the Staff's Report on 2004 Storms. The Company has continued to review the algorithm and other methods to determine an effective way to develop a realistic estimate of restoration time for the customer. The Company has contacted other utilities to determine if they provide an estimate of restoration, and if so, how the times are computed. At this time, the Company has been unable to determine a reliable method of developing an estimate of restoration time under conditions of a widespread outage. The Company believes under these conditions, it is most effective to not provide a specific time because it is not reasonably sure that these time calculations are accurate. Moreover, restoration times cannot be provided for each specific instance of customer outages that has occurred. While the VRU does allow the Company to note up to ten specific zip codes, there is no way to provide each customer with individual customer specific information in the automated response system.

In the instance of the 2005 Storm, the Company determined it would be most advantageous to discontinue providing projected restoration times as opposed to providing information that was very inaccurate. Customers were not provided any indication of the expected restoration time and this absence of information also caused some customer concerns and frustration.

The complaints received by the Staff are not a statistical sample and do not indicate a clear preference on the part of a majority of the customers who did contact the Commission. The comments received were split evenly into two groups of customers: One group represented those who would prefer no estimate, over a grossly inaccurate one and the second group included those who just wanted some assessment of restoration time, even if it was very inaccurate.

The Staff continues to be supportive of the Company providing the customer with an estimate of restoration time but is also understanding of the difficulties associated with determining a reasonable estimate. The availability of accurate field information is a major factor in attempting to develop such an estimate. The Company has increased the number of field checkers used to determine the conditions causing the outage. These field checkers utilize laptops to convey field information back to the EOC for determining the appropriate field crew to be sent to the area.

Because of the importance of this type of information to the customer, the Staff recommends:

***The Company should continue to review alternatives in the development of an estimate of restoration time provided to the customer.***

Key factors in addressing this item seem to be obtaining an accurate field assessment of the damage, determining the necessary repair and then entering the information into the system to assure the repair activity is scheduled correctly. Once the repair has been completed, it can be closed out via the mobile dispatch terminal in the utility truck.

There may be other methods to assist in determining some estimate of restoration time to provide to the customer. The Company has indicated it has reviewed the web pages of other energy companies across the country that have recently dealt with catastrophic outages as a result of hurricanes. Staff would encourage the Company to gather as much information as possible regarding the lessons learned by these other providers in their response to widespread devastation.

As the Company continues to examine methods to develop more reasonable time estimates of restoration, the Staff would recommend that it also reexamine the scripts used to convey information to the customer. The use of particular scripts in the VRU may help to ease customers' concerns when they are unable to obtain any estimate of restoration time. Comments were often made by customers that "if we had known that

the outage was going to last a significant period of time, we could have taken some other actions."

The Company presently surveys its customers to assist in determining the level of service being provided to customers. The Company should consider utilizing this survey process to gather information from customers regarding the type and format of information the customers desire during a major outage.

## Medical Equipment Registry and Long Term Care Facilities

AmerenUE customers who require the use of electrically operated medical equipment may enroll in the Company's Medical Equipment Registry (MER). Equipment that qualifies for this registry includes, but is not limited to, heart monitors, home kidney dialysis, respirators and nebulizers. A physician's statement is required for enrollment.

The MER program is an annual program is designed to provide some priority to these customers during a planned outage associated with work on elements of the distribution system that may result in some interruptions of service. It does not ensure that these customers are able to be afforded priority treatment during an unplanned outage. Utility procedures for restoration of service focus on returning the greatest number of customers to service in the least amount of time. Attempts to restore service to particular customers first could contribute to the length of time that a significant number of other customers have to wait to have their service restored.

The Company does provide the customer with a letter clearly explaining the provisions of the MER program. In response to a Staff recommendation in the 2004 Storms Report, the Company rewrote its MER letter to customers to emphasize the importance of a back up plan during times of a major or lengthy unplanned outage. The revised letter includes information about a dedicated telephone number that MER customers can call in the event of a power outage at their residence. The number of calls that came in to the special phone number during this period is illustrated in the following table.

### MER/Fire and Police Call Information

| Date | Calls Offered | Calls Handled | % Answered | Average Speed of Answer (seconds) |
|---|---|---|---|---|
| 8/13/05 | 692 | 662 | 95.66 | :15 |
| 8/14/05 | 610 | 608 | 99.67 | :03 |
| 8/15/05 | 307 | 306 | 99.67 | :03 |
| 8/16/05 | 175 | 173 | 98.86 | :03 |
| 8/17/05 | 59 | 58 | 98.31 | :02 |
| Total | 1843 | 1807 | | |

The Company was able to respond to the calls it received on the priority phone line in a timely manner. The Staff believes that the changes to the MER letter have improved the communication with these customers about restoration of service efforts during an unplanned outage and encourages the Company to continue these efforts.
Therefore, the Staff recommends that:

***The Company continues its efforts to communicate with its medical equipment registry customers the importance of customer initiated alternatives being available in the event of an extended outage.***

A related issue that was not raised in the previous storm report but has become a concern in the aftermath of the 2005 Storm is the restoration of special needs facilities such as nursing homes during major outages. Questions that were raised regarding nursing homes included:

- What priority, if any, should be given to nursing home facilities during an outage?
- Since nursing home facilities provide various levels of care, should the level of care determine the priority, if any, given to the nursing home facility during an outage?
- How can concerns about the health of all nursing home residents, not just those requiring medical equipment, be addressed?

Clearly, the Company cannot guarantee uninterrupted service to any facility. However, nursing home facilities, regardless of the level of care they give their patients, which are served directly off a feeder, will have priority restoration due to their location on the electrical system. Feeders serve a large number of customers and therefore an attempt is made to restore feeders first. For nursing home facilities that are not served directly off a feeder, basic information needs to be gathered to identify the location of these facilities, the level of care given, the number of patients, and the contact personnel on the nursing home staff.

The Missouri Department of Health and Senior Services' web site identifies several levels of licensure for long term care facilities. Licensing does not specifically identify the equipment used by the facilities but instead identifies the level of skill of the caregivers. Generally, ranking the facilities from the lowest to the highest licensing requirements is: Residential Care Facilities (designated as RCF I or RCF II), Intermediate Care Facilities (ICF), and Skilled Nursing Facilities (SNF). In addition, AmerenUE has identified another classification of facilities which is referred to in this report as Hospital Based Long Term Care (LTC). Based on regional numbers obtained by AmerenUE, a rough estimate of the number of each of these facilities is 321 RCF, 26 ICF, 246 SNF and 24 Hospital Based LTC.

Currently, AmerenUE gives priority to hospitals, which number approximately 50 in the AmerenUE service territory, as well as major police and fire departments. If AmerenUE were to give the same priority to the approximately 617 long term facilities that it does to hospitals, it is extremely likely that significant numbers of other customers would experience more prolonged outages due to modification of the current procedures followed by AmerenUE.

As a result of discussions with the Staff, the Company has developed a proposal to address the prioritization of restoration of these long term care facilities. AmerenUE's proposal includes the following:

- AmerenUE will allow these facilities to register with the Company on an annual basis indicating their status. This registration must be accompanied by an official letter from the Missouri Department of Health and Senior Services indicating that the facility houses life support patients. Upon receipt of the proper verification, AmerenUE will indicate the status on the customer's account. The facility must renew this registration annually.

- During major outages, AmerenUE will attempt to give priority to these customers within their circuit. This means that when AmerenUE is restoring service to customers in a given area identified through the outage restoration process, it will attempt to provide registered facilities with priority treatment. These special needs facilities must realize that they may still experience extended outages that may last several days. These facilities must make the appropriate plans to address

the special needs of their patients during extended outages. However, AmerenUE will work to restore service to these facilities in the priority fashion outlined above.

- AmerenUE will report this program on its web site and send a letter to the Missouri Department of Health and Senior Services asking it to forward program information to any facilities that the Department determines may fit the category described above.

The Staff recommends that:

***Representatives from the nursing home industry and the Company meet to discuss the feasibility of AmerenUE's proposal regarding the registration of long term care facilities.***

The Staff and Office of Public Counsel should be notified of any scheduled meetings regarding this matter so that Staff and Office of Public Counsel will have the opportunity to participate. There should be an effort by the Company working with the long term care industry to identify skilled care facilities that are not directly served by a feeder and allow these facilities to register first. After all feeders have been restored, AmerenUE should consider targeting the location of these skilled care facilities in its efforts to repair smaller circuits. This prioritization may be able to be accomplished without significantly deviating from the basic principles underlying restoration efforts, which is to restore those facilities first which affect the greatest number of customers. The number of customers/long term care residents that each facility serves should be considered in determining the priority of where to direct restoration efforts.

The restoration process is based upon the principle of restoring the greatest number of customers as quickly as possible. As the Company deviates from this procedure by giving priority to specific locations, the restoration process becomes more inefficient and extends the total time that is necessary to restore all customers.

## Contact with City and County Officials

A recommendation was made to AmerenUE by the Staff in its report following the ice storm of January 2002 that AmerenUE should contact city and county officials twice a year to update information regarding contact points with city and county officials. The Company needs to maintain current information to easily contact these officials in the event that a particular area suffers a widespread outage. The Company did attempt to keep this information updated and also implemented several programs to educate and communicate with several specific groups within their service territory identified below.

The Company held a number of "Storm Schools" prior to this storm which were an effort to educate fire, police and city and county officials about what occurs during a widespread outage. The Company believes that these were helpful in educating the emergency personnel involved and could be repeated to attract a larger audience.

The Company attempted to expand its communication efforts with the general public also by increasing its use of the media and an expansion of its web site information. Outage information is provided on a map by zip codes for convenience in locating service locations. Updates on the progress of restoration efforts were faxed by AmerenUE to the major news media several times a day. These updates were also posted to the website. Customers were able to check on the progress of the service restoration efforts through the Ameren.com website. The website provides information on a service map that allows the customer to view outage numbers and locations. The website usage is illustrated in the following table.

**Web Site Usage**

| Date | Views |
|---|---|
| 8/12/05 | 1,096 |
| 8/13/05 | 9,000 |
| 8/14/05 | 22,477 |
| 8/15/05 | 28,400 |
| 8/16/05 | 16,249 |
| 8/17/05 | 6,533 |
| 8/18/05 | 3,213 |
| 8/19/05 | 1,955 |
| 8/20/05 | 853 |

There are two areas of communication that the Staff believes could be improved to facilitate customers' understanding and information regarding a major outage. The first is to expand its efforts to educate city and county officials and other customers in advance of any outage. During the present storm, county officials received a number of inquiries from constituents regarding their service restoration. Officials were often unaware of the complexities of storm outage restoration and unsure how to respond to their constituents. The Company could develop and hold a series of informational meetings with city and county officials to explain storm restoration procedures. These officials could also utilize their own area meetings to inform residents in advance of what to expect during a major outage

Therefore, the Staff recommends that:

***The Company should expand its presentation of informational meetings regarding major outages prior to storm season to include city and county officials.***

The second area of improvement concerns methods of communication between the Company and city and county officials during a major outage. The Company may want to develop an e-mail list serve as well as maintaining cell phone numbers for these officials to provide information on the outage and the status of the restoration efforts. These officials can then be more responsive to questions from constituents.

Therefore, the Staff recommends that:

***The Company should develop an efficient method of communicating the status of restoration efforts with city and county officials in the affected area during a major outage.***